

Reclamation Manual

Directives and Standards

Subject: Power Operation and Maintenance (O&M) Incident Evaluation and Reporting Program

Purpose: Establishes the minimum requirements for incident evaluation and reporting practices at Reclamation power facilities. This directive only applies to Reclamation-owned, -operated, or -maintained power facilities.

Authority: Reclamation Project Act of 1902, other applicable laws, Executive orders, judicial decisions, policies, and regulations.

Contact: Power Resources Office, D-5400

1. Program Goals.

- A. To document power facility incidents for purposes of power program review, evaluation, and/or statistical analysis.
- B. To evaluate power facility incidents to determine the root cause(s) of the incident for the purpose of improving the power program in the areas of operation, maintenance, and management practices.
- C. To coordinate with and supplement the documentation and evaluation performed as directed by the Reclamation Manual, *Occupational Safety and Health - Accident/Incident Investigation and Reporting* (SAF 01-02), and other applicable directives.

2. Definitions.

- A. **Incidents.** Incidents will be defined as an unexpected or undesirable event resulting in loss of functionality of equipment or systems that impact the capability to deliver or control water or power. Incidents are events that:
 - (1) Endanger the life or well-being of any person.
 - (2) Result in damage to or failure of equipment or systems.
 - (3) Result in unintentional equipment or system outage.
 - (4) Result in an incorrect operation of equipment or systems.
 - (5) Result in dangerous operating conditions.

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- (6) Result in an undesired operation due to incorrect equipment installation, maladjustment, design deficiency, or manufacturing deficiency.
- (7) Violate a rule, standard practice, or standing operating procedure.
- (8) Result in the incorrect execution of a switching order.
- (9) Violate an environmental regulation or agreement.

3. Program Implementation.

A. Funding.

- (1) Incident evaluations will be funded by each facility with costs distributed in the same manner as other O&M costs. Actual Office of Policy and Technical Service Center costs associated with conducting a Level 1 evaluation will be charged to the appropriate facility only in the year the incident takes place.
- (2) Annual costs incurred by the Office of Policy and the Technical Service Center in maintaining the core program and meeting reporting requirements which cannot be allocated to individual facilities will be funded via the Power Program Services funding source.

B. Coordination With Other Programs.

- (1) The Power Incident Evaluation and Reporting Program associated with this directive and standard will be coordinated with other incident evaluation programs. Such programs include, but are not limited to, Reclamation Manual, *Directives for the Review of Operation and Maintenance (RO&M) Program Examination of Associated Facilities (Facilities Other Than High- and Significant-Hazard Dams)* (FAC 01-04); OSHA; Departmental Manual 485; Reclamation Manual, *Occupational Safety and Health - Accident/Incident Investigation and Reporting* (SAF 01-02); and other applicable directives. The point of contact will be the Designated Safety and Health Official (DASHO).
- (2) Implementation of new or revised directives and standards may have an impact on the labor-management relationship. For example, if a new procedure changes existing conditions of employment or establishes a new personnel policy or practice at the local level of recognition, consultation and/or negotiation with the exclusive representative may be required. The labor-management relations specialist for your region will be able to provide help and guidance if you have a question or concern.

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- C. **Variance.** Because of shared program responsibilities, variances from these directives will not be allowed unless approval is received in writing from the Regional Director.
4. **Incident Notification and Evaluation Procedures.** The procedures for power facilities will consist of the following:
- A. **Level 1 Incidents.**
- (1) **Scope.** Level 1 incidents have the highest level of significance, typically having Reclamation-wide implication. Level 1 incidents are major events involving serious damage to equipment, major power system breakup, prolonged outages, or the inability to deliver water.
 - (2) **Notification.**
 - (a) Each area office has the responsibility to advise the region of the occurrence of Level 1 incidents.
 - (b) The Regional Director will be responsible for reporting Level 1 incidents to the Director of Operations; Director, Office of Policy, Maintenance Program Officer, and the Manager, Power Resources Office.
 - (3) **Appointing an Evaluation Board.**
 - (a) The Regional Director will be responsible for ensuring an evaluation board is appointed and the incident is properly evaluated and documented. Also, it is the responsibility of each Regional Director to coordinate the evaluation process and documentation of power incidents with all other Reclamation and departmental reviews.
 - (b) Each area office will have the authority and responsibility to act on any and all recommendations developed within the Power Incident Evaluation and Reporting Program.
 - (4) **Evaluation Board Guidelines.** Each incident will be evaluated and documented by a board. The board will be appointed by the Regional Director. Appointees will have the technical qualifications to accurately assess the incident, determine the cause(s), and make appropriate recommendations. Participation external to Reclamation is strongly encouraged on Level 1 evaluation boards.

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(5) Incident Evaluation Documentation.

- (a) Level 1 documentation will include a formal report to be prepared detailing the findings and recommendations of the Level 1 evaluation. A recommended report format will be provided separately from these directives as guidance to follow in providing a consistent Reclamation-wide approach for report documentation. Documentation will be signed by the evaluating board and reviewed with the responsible manager. (See paragraph 5.)
- (b) Level 1 incident evaluation reports will be transmitted preferably within 60 days following the initiation of the evaluation process and distributed in accordance with paragraph 5C.

B. Level 2 Incidents.

- (1) **Scope.** Level 2 Incidents are those having significance to more than the area or project office and having region-wide implication. Level 2 incidents are significant events involving unusual operation or misoperation of equipment causing short-term loss of load, generation, or transmission or results in major equipment damage.
- (2) **Notification.**
 - (a) Each area office has the responsibility to advise the region of the occurrence of Level 2 incidents.
 - (b) The Regional Director will be responsible for reporting Level 2 incidents to the Office of Policy, Maintenance Program Officer, and the Manager, Power Resources Office.
- (3) **Appointment of Evaluation Board.**
 - (a) The Area Manager will be responsible for ensuring an evaluation board is appointed and the incident is properly evaluated and documented. Depending on the severity and impacts of the incident, the Area Manager may elect to use external participation on the Incident Board.
 - (b) Each area office will have the authority and responsibility to act on any and all recommendations developed within the Power Incident Evaluation and Reporting Program.

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- (4) **Evaluation Board Guidelines.** Each incident will be evaluated and documented by a board. The board will be appointed by the Area Manager. Appointees will have the technical qualifications to accurately assess the incident, determine the cause(s), and make appropriate recommendations. Participation external to Reclamation is encouraged on Level 2 evaluation boards.
- (5) **Incident Evaluation Documentation.**
 - (a) Level 2 documentation will include a formal report to be prepared detailing findings and recommendations of the Level 2 evaluation. A recommended report format will be provided separately from these directives as guidance to follow in providing a consistent Reclamation-wide approach for report documentation.
 - (b) Level 2 incident evaluation reports will be transmitted preferably within 60 days following the initiation of the evaluation and distributed in accordance with paragraph 5C.

C. Level 3 Incidents.

- (1) **Scope.** Level 3 incidents are those with local significance or events involving unusual operation or misoperation of equipment resulting in momentary loss of load, generation, or transmission or moderate damage to equipment. Level 3 incidents are considered less significant than either Level 1 or Level 2.
- (2) **Notification.** Each facility has the responsibility to advise the area office.
- (3) **Appointment of Evaluation Board.** The Facility/Area Manager will be responsible for ensuring an evaluation board is appointed and the incident is properly evaluated.
- (4) **Evaluation Board Guidelines.** Depending on the severity and impacts of the incident, the Facility/Area Manager may elect to use external participation on the incident board. Minor incidents may be evaluated and reported by one person.
- (5) **Incident Evaluation Documentation.**
 - (a) Level 3 incidents should result in a written report or filling out the O&M Improvement Reporting System Form (PO&M 171). A minimal report will consist of a completed PO&M-171. The need for a more formal report depends on the consequences resulting from the incident and the

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learning value that may be gained from the evaluation time.

Documentation procedures associated with report writing are described in a separate directive as guidance to follow in providing a consistent Reclamation-wide approach in the documentation of these evaluations.

- (b) Level 3 incident evaluation reports will be completed, preferably within 10 days following the initiation of the evaluation, and distributed in accordance with paragraph 5C.

5. Incident Reports.

A. **Content.** Reports will include all pertinent information to fully understand the sequence of events surrounding the incident, what resulted, and recommendations for improvement.

B. **Format.** Report format will be as described in the *Incident Evaluation and Reporting Guide*.

C. Distribution.

- (1) **Level 1.** Reports will be transmitted to the Regional Director, with copies to the Area Manager; Director of Operations; Maintenance Program Officer; Manager, Power Resources Office; and to all Evaluation Board participants.
- (2) **Level 2.** Reports will be transmitted to the Area Manager, with copies to the Regional Director, Maintenance Program Officer, Power Resources Office, and to all Evaluation Board participants.
- (3) **Level 3.** Reports will be transmitted to the Area Manager, with copies to the local operating office and all Evaluation Board participants.

Report recommendations should be distributed to other facilities as “lessons learned.”

6. Categorizing and Tracking Recommendations and Dispute Resolution.

A. **Recommendations.** Recommendations resulting from the incident evaluation will be included in the Evaluation Report. Recommendations and their status will be the subject of reviews conducted under the Power Review of Operations and Maintenance Program.

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B. Categorizing. Recommendations will be of the following categories:

(1) Category 1.

- (a) Recommendations involving correction of severe deficiencies where immediate and responsive action is required to ensure structural and operational integrity of a facility.
- (b) Based on the severity of the deficiency and the condition at the time of the examination, the review team will prescribe an appropriate timeframe for completing the recommendation. Suggested remedial measures will be discussed at the exit briefing and included in the examination report. Within 30 days following preparation or receipt (depending on the office conducting the review) of the report, the responsible Regional Director will notify the Director, Office of Policy, D-5000; Maintenance Program Officer, D-5000; Power Resources Office, D-5400; Director, Operations, W-6000; and the Director, Technical Service Center, D-8400, of the plans for accomplishing the work and a scheduled completion date.

(2) Category 2.

- (a) Recommendations covering a wide range of important matters where action is needed to prevent or reduce further damage or preclude possible operational failure of the facility.
- (b) Recommendations are to be acted upon as soon as practicable following receipt of the report. It is desirable that those recommendations that can be included, scheduled, and accomplished as part of the normal O&M program be undertaken as soon as weather or water conditions allow. Some recommendations require a longer time to accomplish because of the need to budget funds; complete designs; or secure equipment, materials, or personnel. In such cases, the related planning and budgeting should be initiated in a timely manner.
- (c) Any Category 2 recommendation remaining incomplete at the time of the following examination will be addressed during that examination and within the corresponding examination report

(3) Category 3.

- (a) Recommendations covering less important matters but believed to be sound and beneficial suggestions to improve or enhance the O&M of the project or facility.

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- (b) The status of each Category 3 recommendation will be provided in the subsequent examination report. If the recommendation is still applicable, a current-year designation should be used.
- C. **Tracking.** Recommendations will be entered into the Power Review Information System by the area/regional office. The area office will be responsible for updating the completion status of all current recommendations.
- (1) **Annual Summary Report.** An annual summary report, providing an indication of effectiveness in accomplishing Category 1 and 2 recommendations related to the power facilities, will be prepared by the Power Resources Office. The summary report will highlight Reclamation Power O&M Program problems and successes, status of recommendations, and recommendations appropriate for Reclamation management action.
- D. **Dispute Resolution.** Disagreement with report findings or disputed recommendations will be documented in writing by the Regional Director to the Director of Operations within 90 days of report publication. Disputes will be resolved by the Reclamation Dispute Resolution Process as defined in the *Conflict Management Guidebook* published in August 1998.